SAT-MOD-20010405-00079 52381 ant Diete Approved by OMB iem Date 3060-0678 Fru SEC Conditions To ans. **DDANTET** Date & Time Filed: Apr 5 2004 2:54:42:353PM Thirt Satellite VEngineury Branch terestional Buren File Number: SAT-MOD-20040405-00079 Approved 6. Nelso FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM FCC Use Only FCC 312 MAIN FORM FOR OFFICIAL USE ONLY **APPLICANT INFORMATION** Enter a description of this application to identify it on the main menu: Galaxy 3C (from 95W to 95.05W) 1-8. Legal Name of Applicant

Name:	PanAmSat Licensee Corp.	Phone Number:	202-292-4300
DBA Name:		Fax Number:	202-292-4378
Street:	1801 K. Street, N.W.	E-Mail:	
	Suite 440		
City:	Washington	State:	DC
Country:	USA	Zipcode:	20006 -
Attention:	Mr Kalpak S Gude Esq		

 S2381
 SAT-MOD-20040405-00079
 IB2004000725

 PanAmSat Licensee Corp.
 GALAXY 3C
 Image: Control of the second s

#### Attachment Conditions of Authorization June 15, 2004

1. PanAmSat Licensee Corp.'s application, SAT-MOD-20040405-00079, IS GRANTED and PanAmSat Licensee Corp.'s authorization to operate its GALAXY 3C satellite call-sign S2381 currently assigned to the 95.0°W.L. orbital location is modified to reflect operations at 95.05° W.L. with  $\pm 0.05^{\circ}$  longitudinal station-keeping, in the frequency bands 3700 – 4200 MHz, 5925-6425 MHz, 6425-6675 MHz, 11.45- 11.7 GHz, 11.7 – 12.2 GHz, 13.75 – 14.0 GHz and 14.0 – 14.5 GHz, in accordance with the terms, conditions, and technical specifications set forth in its application, this Attachment and the Commission's Rules.

2. PanAmSat Licensee Corp. shall prepare the necessary information, as may be required, for submission to the ITU to initiate and complete the advance publication, international coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. PanAmSat Licensee Corp. shall be held responsible for all cost recovery fees associated with these ITU filings. We also note that no protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 C.F.R. § 25.111(b).

3. Action on this application is without prejudice to possible enforcement action in connection with operations of the GALAXY 3C satellite prior to this action.

4. PanAmSat Licensee Corp. is afforded thirty days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

5. This Grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

9–16. Name	of Contact F	Representative (If other than applican	it)	
1	Name:	Joseph A. Godles, Esq.	Phone Number:	202-429-4900
(	Company:	Goldberg Godles Wiener & Wright	Fax Number:	202-429-4912
8	Street:	1229 19th Street, NW	E-Mail:	jgodles@g2w2.com
(	City:	Washington	State:	DC
(	Country:	USA	Zipcode:	20036-2413
	Contact Fitle:	Attorney	Relationship:	Legal Counsel

# CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.	(N/A) b1. Application for License of New Station (N/A) b2. Application for Registration of New Domestic Receive-Only Station
for 17a and only one for 17b. al. Earth Station a2. Space Station	<ul> <li>(N/A) b3. Amendment to a Pending Application</li> <li>(N/A) b4. Modification of License or Registration</li> <li>b5. Assignment of License or Registration</li> <li>b6. Transfer of Control of License or Registration</li> <li>(N/A) b7. Notification of Minor Modification</li> <li>(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite</li> <li>(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United</li> </ul>
	States • (N/A) b10. Other (Please specify)

● If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).

O Governmental Entity O Noncommercial educational licensee

• Other(please explain):

17d.

Fee Classification A BFY – Space Station Modification(Geostationary)

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pendir modification please enter only the file numb	ng application enter both fields, if this filing is a ber:
(a) Call sign of station: GALAXY 3C	(a) Date pending application was filed:	(b) File number: SATLOA1999081200082

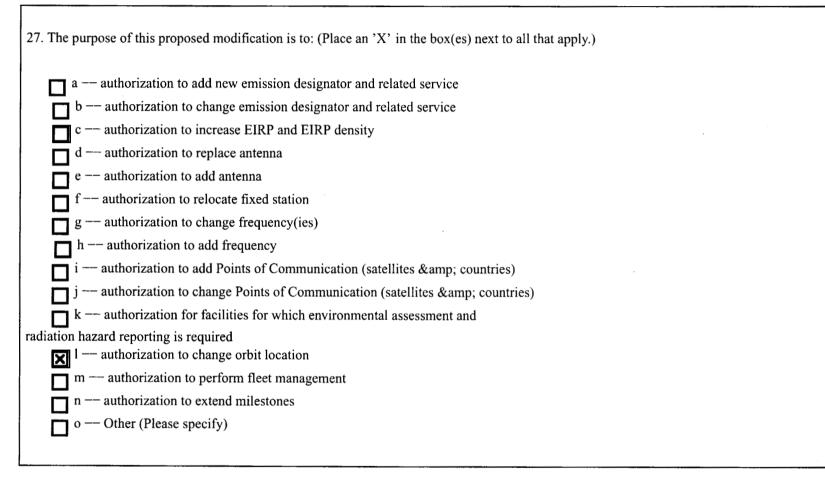
# TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provid	e or use the following type(s) of service(s): Select all that apply:				
a. Fixed Satellite					
b. Mobile Satellite					
c. Radiodetermination Satellite					
d. Earth Exploration Satellite					
e. Direct to Home Fixed Satellite					
f. Digital Audio Radio Service					
g. Other (please specify)					
21. STATUS: Choose the button next to the applicable status. Choose only one.	22. If earth station applicant, check all that apply. Using U.S. licensed satellites				
○ Common Carrier ◎ Non-Common Carrier	Using Non–U.S. licensed satellites				
23. If applicant is providing INTERNATIONAL COMMON CARRIER facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these				
• Connected to a Public Switched Network • Not connected to a	Public Switched Network 💿 N/A				
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all a	applicable frequency band(s).				
<b>x</b> a. C-Band (4/6 GHz) <b>b</b> . Ku-Band (12/14 GHz)					
c.Other (Please specify upper and lower frequencies in MHz.)					
Frequency Lower: Frequency Upper: (Please specify addition	onal frequencies in an attachment)				

#### TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
o a. Fixed Earth Station
• b. Temporary–Fixed Earth Station
o c. 12/14 GHz VSAT Network
o d. Mobile Earth Station
e. Geostationary Space Station
o f. Non-Geostationary Space Station
• g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY:
O Transmit/Receive O Transmit-Only O Receive-Only O N/A
"For Space Station applications, select N/A."

#### PURPOSE OF MODIFICATION



#### ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	۲	No	0	N/A
30. Is the applicant an alien or the representative of an alien?	0	Yes	0	No	۲	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	No	۲	N/A
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	0	Yes	0	No	۲	N/A

	33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than	O Yes
Į	one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign	Ŭ.
	government or representative thereof or by any corporation organized under the laws of a foreign country?	

**O** No **O** N/A

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or Ques 30-34 foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

# **BASIC QUALIFICATIONS**

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	O Yes	No     No     Second
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	• Yes	O No
	Ques 36	

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling O Yes lo No the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances. 38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, O Yes a No guilty of unlawfully monopolizing or attemptiing unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances 39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending O Yes 🝙 No matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances. 40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of Oues 40 beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.



42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

PanAmSat seeks to modify its license to operate Galaxy III-C at 95.05 WL and to update technical information regarding those operations.

G3C mod

#### CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

O Individual

• Unincorporated Association

**O** Partnership

Corporation

O Governmental Entity

• Other (please specify)

45. Name of Person Signing Kalpak Gude	46. Title of Person Signing Associate General Counsel	
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Attachment 1:	Attachment 2:	Attachment 3:

#### WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

#### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to jboley@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060–0678.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104–13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

# **Engineering Statement**

PanAmSat Licensee Corp. ("PanAmSat") is currently licensed to operate Galaxy  $3C^1$  from 95° WL utilizing the 5925 – 6675 MHz, 3700 – 4200 MHz, 13750 – 14500, 11450 – 11700 and 11700 – 12200 bands (See FCC File Nos.: SAT-LOA-19990812-00082, SAT-AMD-20020111 and SAT-WAV-20020321) to provide service to various regions in North and South America. In this filing, PanAmSat proposes to modify its license to specify operation of Galaxy 3C from 95.05° WL instead of 95° WL.

To account for this change in orbital location, this engineering statement updates the following technical information that PanAmSat previously had submitted: (1) gain contours, (2) PFD levels and (3) link budget analysis.

#### Gain Contours

The coverage patterns of Galaxy 3C operating from the proposed 95.05° WL orbital location will be the same as those specified in the current license. Changing the proposed orbital location from 95° WL to 95.05° WL will produce no visible change in the gain contours. Accordingly, no new beam gain contours are being submitted.

# Power Flux Density Levels

The power flux density ("PFD") level at the Earth's surface produced by Galaxy 3C operating from the proposed 95.05° WL orbital location will be the same as those corresponding to operation from 95° WL and are presented in Exhibit 1 for the sake of completeness.

# Link Budgets and Interference Analysis

The operational co-frequency satellites nearest to the 95.05° WL orbital location are Intelsat Americas 5, located at 97° WL, and Intelsat Americas 6, located at 93° WL. The Commission has consented to an assignment of the licenses for Intelsat Americas 5 and Intelsat Americas 6 from Loral to Intelsat. An earth station receiving transmissions from Intelsat Americas 5

<sup>&</sup>lt;sup>1</sup> This satellite was formerly known as Galaxy III-C. PanAmSat recently began identifying the satellites in its Galaxy fleet using Arabic numbers instead of Roman numerals.

and having antenna off-axis gain characteristics that are in compliance with the Section 25.209(a)(1) of the FCC Rules, would have an off-axis antenna gain of 21.5 dBi towards Galaxy 3C located at 95° WL. With Galaxy 3C operating from the proposed orbital location of 95.05° WL, the off-axis gain of the receiving earth station would be 21.7 dBi. Hence, there would be a resulting increase in the off-axis gain of the earth station antenna of 0.2 dB in the direction of Galaxy 3C. Such a small increase in the off-axis gain will not change in any meaningful way the existing interference environment of Intelsat Americas 5 receiving earth stations from the proposed operation of Galaxy 3C at 95.05° WL. Similarly, interference from Intelsat Americas 5 transmissions into Galaxy 3C receiving earth stations would be substantially unchanged (0.2 dB variation).

With respect to an earth station receiving transmissions from Intelsat Americas 6, the off-axis antenna gain of the receiving antenna would be reduced from 21.5 dBi to 21.2 dBi – a decrease of 0.3 dB. Such a small decrease in the off-axis gain of Intelsat Americas 6 receive earth station will not change in any meaningful way the existing interference environment of Intelsat Americas 6 receiving earth stations from the proposed operation of Galaxy 3C at 95.05° WL. Similarly, interference from Intelsat Americas 6 transmissions into Galaxy 3C receiving earth stations would be substantially unchanged (0.3 dB variation).

Given that the proposed operation of Galaxy 3C would not result in any significant change to the existing interference environment as it pertains to Galaxy 3C, Intelsat Americas 5 and Intelsat Americas 6, no link budget analysis is provided herein. In the unlikely event that Galaxy 3C operating from 95.05° WL were to adversely affect the transmissions from Intelsat Americas 5 and/or Intelsat Americas 6, PanAmSat would coordinate with Intelsat to reach a mutually acceptable solution.

# Schedule S Submission

For reasons that are discussed above, the proposed operation of Galaxy 3C from 95.05° WL would not result in any material changes to the operating characteristics of the satellite or the existing interference environment. The information requested in Schedule S, therefore, is duplicative of the information that PanAmSat already has provided. Based on this fact and on discussions with the staff of the Satellite Division, PanAmSat is not including a Schedule S with its modification application. However,

PanAmSat will prepare and file a Schedule S in the event that the Satellite Division determines it to be necessary.

# **Certification Statement**

I hereby certify that I am a technically qualified person and am familiar with Part 25 of the Commission's Rules and Regulations. The contents of this engineering statement were prepared by me or under my direct supervision and to the best of my knowledge are complete and accurate.

/s/ Abdolmajid Khalilzadeh Abdolmajid Khalilzadeh PanAmSat Corporation Senior Manager, Asset Engineering April 2, 2004 Date

# **EXHIBIT 1: POWER FLUX DENSITY CALCULATIONS**

FREQUENCY BAND: 3.7 - 4.2 GHz (Analog)							
Elevation Angle (degrees)	0	5	10	15	20	25	90
Assumed EIRP (dBW)	41.3	41.3	42	42	42	42	42
Spreading Loss (dB/m <sup>2</sup> )	163.4	163.3	163.1	163.0	162.9	162.8	162.1
Maximum PFD (dBW/m <sup>2</sup> /4kHz)	-152.1	-152.0	-151.1	-151.0	-150.9	-150.8	-150.1
(36 MHz Analog Carrier ESD: 4 MHz Peak to Peak)		102.0		101.0	130.5	150.0	-150,1
PFD Limit (dBW/m <sup>2</sup> /4kHz)	-152.0	-152.0	-149.5	-147.0	-144.5	-142.0	-142.0
	132.0	102.0	147.5	-147.0	-144.5	-142.0	-142.0
Margin (dB)	0.1	0.0	1.6	4.0	6.4	8.8	8.1
		0.0	1.0	1.0	0.4	0.0	0.1
FREQUENCY BAND: 3.7 - 4.2 GHz (Digital)							
Elevation Angle (degrees)	0	5	10	15	20	25	90
Assumed EIRP (dBW)	42	42	42	42	42	42	42
Spreading Loss (dB/m <sup>2</sup> )	163.4	163.3	163.1	163.0	162.9	162.8	162.1
Maximum PFD (dBW/m <sup>2</sup> /4kHz)	-160.9	-160.8	-160.6	-160.5	-160.4	-160.3	-159.6
(36 MHz Digital Carrier)		10010		10010	100.1	100.5	157.0
PFD Limit (dBW/m <sup>2</sup> /4kHz)	-152.0	-152.0	-149.5	-147.0	-144.5	-142.0	-142.0
	102.0	152.0		117.0	111.5	112.0	142.0
Margin (dB)	8.9	8.8	11.1	13.5	15.9	18.3	17.6
······································							
FREQUENCY BAND: 11.45 - 11.70 GHz (Analog)							
[Latin America Beam]							
Elevation Angle (degrees)	0	5	10	15	20	25	90
Assumed EIRP (dBW)	43.4	43.3	45.6	48.0	50.4	52.8	52.1
Spreading Loss (dB/m <sup>2</sup> )	163.4	163.3	163.1	163.0	162.9	162.8	162.1
Maximum PFD (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
(24 MHz Analog Carrier ESD: 4 MHz Peak to Peak)							
PFD Limit (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
Margin (dB)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FREQUENCY BAND: 11.45 - 11.70 GHz (Digital)							
[Latin America Beam]							
	0			1.5	20		00
Elevation Angle (degrees)		5	10	15	20	25	90
Assumed EIRP (dBW)	51.2	51.1	53.4	54.2	54.2	54.2	54.2
Spreading Loss (dB/m <sup>2</sup> )	163.4	163.3	163.1	163.0	162.9	162.8	162.1
Maximum PFD (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-146.6	-146.5	-146.4	-145.7
(24 MHz Digital Carrier)	150.0	150.0		1 1 5 0	1 40 4	1 4 0 0	
PFD Limit (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
Margin (dB)	0.0	0.0	0.0	1.6	4.0	6.4	5.7
1000 Eni (02)		0.0	0.0	1.0	1.0		
FREQUENCY BAND: 11.45 - 11.70 GHz (Digital)							<b>-</b>
[Latin America TCN Beam]							
• • • • • • • • • • • • • • • • • • •							
Elevation Angle (degrees)	0	5	10	15	20	25	90
Elevation Angle (degrees) Assumed EIRP (dBW)	47.4	47.3	49.3	49.3	49.3	49.3	49.3
Elevation Angle (degrees) Assumed EIRP (dBW) Spreading Loss (dB/m <sup>2</sup> )	47.4 163.4	47.3 163.3	49.3 163.1	49.3 163.0	49.3 162.9	49.3 162.8	49.3 162.1
Elevation Angle (degrees) Assumed EIRP (dBW) Spreading Loss (dB/m <sup>2</sup> ) Maximum PFD (dBW/m <sup>2</sup> /4kHz)	47.4	47.3	49.3	49.3	49.3	49.3	49.3
Elevation Angle (degrees) Assumed EIRP (dBW) Spreading Loss (dB/m <sup>2</sup> ) Maximum PFD (dBW/m <sup>2</sup> /4kHz) (10 MHz Digital Carrier)	47.4 163.4 -150.0	47.3 163.3 -150.0	49.3 163.1 -147.8	49.3 163.0 -147.7	49.3 162.9 -147.6	<u>49.3</u> <u>162.8</u> -147.5	49.3 162.1 -146.8
Elevation Angle (degrees) Assumed EIRP (dBW) Spreading Loss (dB/m <sup>2</sup> ) Maximum PFD (dBW/m <sup>2</sup> /4kHz)	47.4 163.4	47.3 163.3	49.3 163.1	49.3 163.0	49.3 162.9	49.3 162.8	49.3 162.1
Elevation Angle (degrees) Assumed EIRP (dBW) Spreading Loss (dB/m <sup>2</sup> ) Maximum PFD (dBW/m <sup>2</sup> /4kHz) (10 MHz Digital Carrier)	47.4 163.4 -150.0	47.3 163.3 -150.0	49.3 163.1 -147.8	49.3 163.0 -147.7	49.3 162.9 -147.6	<u>49.3</u> <u>162.8</u> -147.5	49.3 162.1 -146.8

# EXHIBIT 1: POWER FLUX DENSITY CALCULATIONS (Continued)

FREQUENCY BAND: 11.45 - 11.70 GHz (Analog)							
[Puerto Rico Beam]							
	0	5	10	15	20	25	90
Elevation Angle (degrees)	43.4	43.3	45.6	48.0	50.4	52.8	52.1
Assumed EIRP (dBW)							
Spreading Loss (dB/m <sup>2</sup> )	163.4	163.3	163.1	163.0	162.9	162.8	162.1
Maximum PFD (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
(24 MHz Analog Carrier ESD: 4 MHz Peak to Peak)							
PFD Limit (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
Margin (dB)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FREQUENCY BAND: 11.45 - 11.70 GHz (Digital)							
[Puerto Rico Beam]							
Elevation Angle (degrees)	0	5	10	15	20	25	90
Assumed EIRP (dBW)	51.2	51.1	53.4	55.8	58.2	59.6	59.6
Spreading Loss (dB/m <sup>2</sup> )	163.4	163.3	163.1	163.0	162.9	162.8	162.1
Maximum PFD (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-145.0	-142.5	-141.0	-140.3
(24 MHz Digital Carrier)							
PFD Limit (dBW/m <sup>2</sup> /4kHz)	-150.0	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
Margin (dB)	0.0	0.0	0.0	0.0	0.0	1.0	0.3

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PanAmSat Licensee Corp. FCC Form 312 Exhibit A Page 1 of 1

#### Exhibit A Response to Items 30-34

Section 310(b)(4) of the Communications Act of 1934, as amended, establishes certain limitations on indirect foreign ownership and voting of certain common carrier and broadcast licensees. By definition, these limitations do not apply to non-common carrier space station licenses held by PanAmSat Licensee Corp.

PanAmSat Licensee Corp. FCC Form 312 Exhibit B Page 1 of 1

#### Exhibit B Response to Item 36 Regarding Cancelled Authorizations

PanAmSat Licensee Corp. ("PanAmSat") never has had an FCC license "revoked." However, on June 26, 2000, the International Bureau "cancelled" two Ka-band satellite authorizations issued to PanAmSat, based on the Bureau's finding that PanAmSat LC had not satisfied applicable construction milestones. *See In re PanAmSat Licensee Corp.*, Memorandum Opinion and Order, DA 00-1266, 15 FCC Rcd 18720 (IB 2000). In that same order, the Bureau denied related applications to modify the cancelled authorizations. PanAmSat filed an application for review of the Bureau's decision, which the Commission denied, and subsequently filed an appeal with the United States Court of Appeals for the District of Columbia Circuit, which was dismissed in January 2003 at PanAmSat's request. Notwithstanding the fact that the Bureau's action does not seem to be the kind of revocation action contemplated by question 36, PanAmSat is herein making note of the decision in the interests of absolute candor and out of an abundance of caution.

In any event, the Bureau's action with respect to PanAmSat does not reflect on its basic qualifications, which are well-established and a matter of public record.

PanAmSat Licensee Corp. FCC Form 312 Exhibit C Page 1 of 5

100%

#### Exhibit C Response to Item 40

PanAmSat Licensee Corp. ("PanAmSat") is an indirect 100% subsidiary of PanAmSat Corporation, and The DIRECTV Group, Inc. (formerly known as Hughes Electronics) ("DIRECTV") owns approximately 81% of PanAmSat Corporation. Fox Entertainment Group, Inc. ("Fox") owns 34% of DIRECTV, and The News Corporation Limited ("News Corp."), whose largest voting shareholder is Rupert Murdoch, indirectly owns 82% of Fox. On December 19, 2003, the Commission adopted a Memorandum Opinion and Order in which it consented to transferring *de facto* control of DIRECTV and its subsidiaries, including PanAmSat, to News Corp.<sup>1</sup>

I. Names, addresses, citizenship, and percentage interests of stockholders owning of record and/or voting 10 % or more of voting stock of PanAmSat Licensee Corp.:

PanAmSat International Systems, LLCUSAc/o PanAmSat Corporation2020 Westport Road4Wilton, CT 068974

#### II. Names and addresses of Directors of PanAmSat Corporation:

Chase Carey Chairman of the Board of Directors c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Bruce Churchill c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

<sup>&</sup>lt;sup>1</sup> FCC 03-330 (rel. Jan. 14, 2004).

PanAmSat Licensee Corp. FCC Form 312 Exhibit C Page 2 of 5

Patrick J. Costello c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Patrick Doyle c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Eddy W. Hartenstein c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Dennis F. Hightower c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

James M. Hoak c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Larry D. Hunter c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Stephen R. Kahn c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Joseph R. Wright c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

PanAmSat Licensee Corp. FCC Form 312 Exhibit C Page 3 of 5

#### III. Names and addresses of Officers of PanAmSat Corporation:

Chase Carey Chairman of the Board of Directors c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Joseph R. Wright President and Chief Executive Officer c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

James B. Frownfelter Executive Vice President and Chief Operating Officer c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

James W. Cuminale Executive Vice President and Secretary c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Thomas E. Eaton, Jr. Executive Vice President, Global Sales c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Michael J. Inglese Senior Vice President and Chief Financial Officer c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

PanAmSat Licensee Corp. FCC Form 312 Exhibit C Page 4 of 5

Michael E. Antonovich Senior Vice President, Broadcast Services c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Douglas Max Reid Senior Vice President, Human Resources c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Bruce A. Haymes Senior Vice President, Business Development c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

John T. Maxwell Senior Vice President, Finance c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Adrienne E. Calderone Vice President & Controller c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Michael A. Matsuoka Vice President, Sales c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

Sandra van Essche Vice President & Associate General Counsel c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

PanAmSat Licensee Corp. FCC Form 312 Exhibit C Page 5 of 5

Kevin F. Watson Treasurer c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

E. Jean Kim Assistant Secretary c/o PanAmSat Corporation 20 Westport Road Wilton, CT 06897

# ORIGINAL

READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING	FEDERAL COMMU REMITTA	FEDERAL COMMUNICATIONS COMMERCIANELLOR APR 092004 3060- REMITTANCE ADVICE				
(1) LOCK BOX # 358210						
	SECTION A	- PAYER INFORMATI				
(2) PAYER NAME (if paying by credit card e PanAmSat Licensee Corp.				ID (U.S. Dollars and cents)		
(4) STREET ADDRESS LINE NO.1 1801 K Street, N.W.	SAT.	- MOD- 2	004040	5.00079		
(5) STREET ADDRESS LINE NO. 2 Suite 440			04010	5 000 1 1		
(6) CITY Washington			(7) STATE (8) 2 DC	ZIP CODE 20006		
(9) DAYTIME TELEPHONE NUMBER (inc 202 - 2924300	iude area code)	(10) COUNTRY	CODE (if not in U.S.A.)			
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	SECTION	D – CERTIFICATION				
CERTIFICATION STATEMENT 1	_, certify under penalty of perjury the	tat the foregoing and sup	porting information is true ar	nd correct to		
SIGNATURE			DATE			
	SECTION E - CREDIT C		-			
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I hereby authorize the FCC to charge my credit	card for the service(s)/authorization	herein described.				
SIGNATURE	•		DATE	1-11-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		
	SEE PUBLIC BURDEN ON RI	EVERSE	FCC FORM 159	FEBRUARY 2003(REVISED)		